

Patent Claims:

1. Hydraulic unit for slip-controlled brake systems, including an accommodating member, into the first housing surface of which open several valve accommodating bores in several valve rows, and several inlet valves are arranged in a first valve row, several outlet valves are arranged in a second valve row, and at least one separating valve is arranged in a third valve row, including a second housing surface into which open at least one brake pressure generator and/or one wheel brake connection, including a pump accommodating bore which is arranged in the accommodating member and points transversely to the direction the valve accommodating bores open into the accommodating member, including a motor accommodating bore arranged in the accommodating member and pointing to the pump accommodating bore, including an accumulator accommodating bore which opens into the accommodating member and is arranged adjacent to the second valve row housing the outlet valves, as well as including several channels which connect the valve accommodating bores, the pump accommodating bores and the accumulator accommodating bores and are able to establish a hydraulic connection between the brake pressure generator connection and the wheel brake connection,
c h a r a c t e r i z e d in that the third valve row (Z) is arranged between the first and the second valve row (X, Y).

2. Hydraulic unit as claimed in claim 1,
c h a r a c t e r i z e d in that the first valve row (X) opens directly beside the brake pressure generator and wheel brake connections (B1, B2, R1-R4) into the accommodating member (2), while the second valve row (Y) opens between the third valve row (Z) and the accumulator accommodating bore (6) into the accommodating member (2).
3. Hydraulic unit as claimed in claim 1 or 2,
c h a r a c t e r i z e d in that the brake pressure generator connection (B1, B2) is connected by way of a first portion (1a) of a supply channel (1) to the valve accommodating bore (Z2) of the third valve row (Z) that accommodates the separating valve, opening as an oblique channel radially or tangentially into the valve accommodating bore (Z2).
4. Hydraulic unit as claimed in any one of claims 1 to 3,
c h a r a c t e r i z e d in that a bore (3) for a pulsation damper opens into the accommodating member (2) between the brake pressure generator connection (B1, B2) and the third valve row (Z), which bore is connected to the supply channel (1) and aligned opposite to the first housing surface (A1) in the accommodating member (2).
5. Hydraulic unit as claimed in any one of the preceding claims,
c h a r a c t e r i z e d in that the supply channel (1) has a second portion (1b) which leads to an additional valve accommodating bore (Z1) in the third

valve row (Z) into which an electrically operable change-over valve is inserted.

6. Hydraulic unit as claimed in claim 5,
c h a r a c t e r i z e d in that the length of both portions (1a, 1b) of the supply channel (1) in the accommodating member (2) is defined by the distance of the third valve row (Z) from the brake pressure generator connection (B1, B2).
7. Hydraulic unit as claimed in claim 5,
c h a r a c t e r i z e d in that a suction channel (4) is connected to the additional valve accommodating bore (Z1) of the third valve row (Z) in which the change-over valve is received, the suction channel in the accommodating member (2) leading preferably as an angular channel to the pump accommodating bore (5).
8. Hydraulic unit as claimed in claim 7,
c h a r a c t e r i z e d in that the length of the suction channel (4) is defined by the distance of the third valve row (Z) from the pump accommodating bore (5).
9. Hydraulic unit as claimed in claim 7,
c h a r a c t e r i z e d in that the pump accommodating bore (5) is penetrated by the suction channel (4) in the direction of an accumulator accommodating bore (6), and the suction channel (4) opens into the bottom of the accumulator accommodating bore (6).

10. Hydraulic unit as claimed in claim 9,
c h a r a c t e r i z e d in that a non-return valve that opens in the direction of the pump accommodating bore (5) is inserted into the portion of the suction channel (4) which is positioned between the pump accommodating bore (5) and the accumulator accommodating bore (6).
11. Hydraulic unit as claimed in claim 9,
c h a r a c t e r i z e d in that opening into the bottom of the accumulator accommodating bore (6) is a return channel (7) which is connected to at least one valve accommodating bore (Y2) accommodating the outlet valves in the second valve row (Y) and opening into the accommodating member (2) between the accumulator and pump accommodating bores (6, 5).
12. Hydraulic unit as claimed in any one of the preceding claims,
c h a r a c t e r i z e d in that remote from the suction channel (4), a pressure channel (8) opens radially or tangentially into the pump accommodating bore (5), the pressure channel being connected by way of a pressure damping chamber (9) to the valve accommodating bores (X1, X2 or X3, X4, respectively) of the first valve row (X) in which the inlet valves are received, for what purpose the pressure damping chamber (9) is arranged in the accommodating member (2) between the pump accommodating bore (5) and the valve accommodating bores (X1, X2 or X3, X4, respectively) of the first valve row (X).

13. Hydraulic unit as claimed in any one of the preceding claims,

c h a r a c t e r i z e d in that close to the second valve row (Y), several pressure sensor accommodating bores (W1-W5) of a pressure sensor row (W) open into the first housing surface (A1) of the accommodating member (2) which, by way of several pressure sensor channels (10) connected to wheel pressure channels (12), are connected to the valve accommodating bores (X1-X4) of the first valve row (X) and the valve accommodating bore (Z2) of the third valve row (Z) in which the change-over valve is received.